

ABSTRACT OF THE DISCLOSURE

Dispersions of hybrid polyurethane particles are made using miniemulsion techniques. An isocyanate-terminated prepolymer and a monomer are mixed and dispersed in an aqueous phase to form a dispersion of droplets. All droplets are polymerized and chain-extended in one step to form hybrid particles containing a polyurethane and a polymer of the monomer. This process provides a simple method of making hybrid particles, in which particle size and the number of particles is controlled in the mixing step. The hybrid particles often have a core-shell morphology, with the polyurethane being concentrated in the shell and the polymer being concentrated in the center of the particle.